Amendments to the DRAWINGS:

The Drawing of Figure 2 was objected to because it contains handwritten labels. Accordingly, accompanying this Amendment is a Replacement Sheet for Figure 2, which now contains no handwritten labels, as suggested. No new matter has been added, and the text is supported by the present application. Approval and entry are respectfully requested.

Attachment: One (1) Replacement Sheet.

REMARKS

Claims 6 to 8 and 11 are pending and under consideration in the present application (since claims 9 and 10 were previously withdrawn in response to a restriction action).

In view of the following, it is respectfully submitted that all of the presently pending claims are allowable, and reconsideration is respectfully requested.

With respect to paragraph four (4) of the Final Office Action, the drawing of Figure 2 was objected to because it contains handwritten labels. Accordingly, accompanying this Amendment is a Replacement Sheet for Figure 2, which now contains no handwritten labels, as suggested. No new matter has been added, and the text is supported by the present application. Approval and entry are respectfully requested.

With respect to paragraph six (6) of the Final Office Action, claims 6 to 8, and 11 were rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent No. 4,063,237 ("Nier"), in view of U.S. Patent No. 5,440,109 ("Hering"). It is respectfully submitted that the proposed combination of the Nier and Hering references does not disclose (or suggest) all of the features of claims 6 to 8, and 11.

Claim 6 relates to a method for a motor vehicle having an adaptive distance and speed control for lane allocation of vehicles on multi-lane roads, including the feature of *carrying out the lane allocation in a model-based manner via a frequency distribution of lateral displacements of detected radar objects* by: *correlating the frequency distribution with one of (a) stored models for frequency distributions of lateral displacements, relating to lane allocation for multi-lane roads* having a defined width and *(b) characteristic lateral displacement histograms for different lanes* used by a succeeding vehicle; and *outputting a model part having a highest correlation to the frequency distribution as a lane hypothesis.*

The Nier reference does not disclose (or suggest) the feature of *carrying out the lane allocation in a model-based manner via a frequency distribution of lateral displacements of detected radar objects.* The Nier reference merely refers to a distance measuring system "to measure the spacing between a leading and a trailing vehicle ... in a single traffic lane." (Nier, col. 2, lines 1 to 6 (emphasis added)). Further, the Nier reference refers to that "[o]nly those signals are processed in the system of the present invention which are re-radiated or reflected by a leading vehicle in the same traffic lane." (Nier, col. 5, lines 41 to 44 (emphasis added); and col. 6, lines 25 to 28). The Final Office Action asserts that the Nier reference teaches "stor[ing] the frequency distribution in a table like manner on the traffic lane," referring to Table 1 of the Nier reference. (Final Office Action, p. 3). However, Table 1 of

the Nier reference merely shows an example of possible frequencies of the two oscillators (68, 92) depending on the traffic lane, but nowhere does the Nier reference indicate storing the frequency distribution in a table, as suggested by the Final Office Action. (Nier, col. 6, lines 38 to 41; and col. 7, Table 1). Indeed, as quoted above, the Nier reference specifically states that it does not even process signals from laterally displaced, detected radar objects, but only processes signals from a leading vehicle in the same traffic lane. Therefore, the Nier reference does not disclose (or suggest) the feature of carrying out the lane allocation via a frequency distribution of lateral displacements of detected radar objects, as provided for in the context of claim 6.

Further, the Hering reference does not cure this critical deficiency of the Nier reference. The Hering reference merely refers to an automatic toll ticketing system that identifies the position of vehicles in order to distinguish paying vehicles from non-paying vehicles. (Hering, col. 1, lines 56 to 63; and col. 2, lines 13 to 23). Nothing in the Hering reference discloses or even refers to a frequency distribution of lateral displacements of detected radar objects. Therefore, the proposed combination of the Nier and Hering references does not disclose (or suggest) the feature of *carrying out the lane allocation in a model-based manner via a frequency distribution of lateral displacements of detected radar objects*, as provided for in the context of claim 6.

In addition, the proposed combination of the Nier and Hering references does not disclose (or suggest) the feature of *correlating the frequency distribution with one of (a) stored models for frequency distributions of lateral displacements, relating to lane allocation for multi-lane roads* having a defined width and *(b) characteristic lateral displacement histograms for different lanes* used by a succeeding vehicle. Neither the Nier nor Hering references discloses or even refers to stored models for frequency distributions of lateral displacements, or characteristic lateral displacement histograms for different lanes. Since neither reference discloses or even refers to frequency distributions at all, neither reference can indicate correlating the frequency distribution with stored models or characteristic histograms.

Further, since the Nier reference processes signals only from a leading vehicle in the same traffic lane, the Nier reference plainly teaches away from correlating a frequency distribution with stored models or characteristic histograms for different lanes. Also, since the toll system of the Hering reference is fixed over a known roadway, the Hering reference would have no use for correlating a frequency distribution with stored models or

characteristic histograms because the traffic lanes at the toll system are already known.

Therefore, the proposed combination of the Nier and Hering references does not disclose (or suggest) the feature of *correlating the frequency distribution with one of (a) stored models for frequency distributions of lateral displacements, relating to lane allocation for multi-lane roads* having a defined width and *(b) characteristic lateral displacement histograms for different lanes* used by a succeeding vehicle, as provided for in the context of claim 6.

Further, the proposed combination of the Nier and Hering references does not disclose (or suggest) the feature of *outputting a model part having a highest correlation to the frequency distribution as a lane hypothesis*. As explained above, neither the Nier nor Hering references discloses or even refers to carrying out the lane allocation via a frequency distribution, or correlating the frequency distribution with stored models or characteristic histograms. Therefore, the proposed combination of the Nier and Hering references also does not disclose (or suggest) the feature of *outputting a model part having a highest correlation to the frequency distribution as a lane hypothesis*, as provided for in the context of claim 6.

Accordingly, it is respectfully submitted that claim 6 is allowable for at least the reasons provided above.

Claim 7 includes features similar to those of claim 6. Specifically, claim 7 relates to a device, including the feature of means for *carrying out a lane allocation in a model-based manner via a frequency distribution of lateral displacements of detected radar objects*, and the feature of means for *correlating a determined frequency distribution with one of (a) stored models for frequency distributions of lateral displacements, relating to lane allocation for multi-lane roads* having a defined width and *(b) characteristic lateral displacement histograms for different lanes* used by a succeeding vehicle.

Accordingly, it is respectfully submitted that claim 7 is allowable for essentially the same reasons provided above. Claim 8 depends from claim 7 and is therefore allowable for at least the same reasons as claim 7.

Claim 11 also includes features similar to those of claim 6. Specifically, claim 11 relates to a method for performing lane allocation of consecutive vehicles on a multi-lane road, including the features of *determining lateral displacements of radar sensor detected objects relative to a longitudinal vehicle axis*, in which *the lane allocation is implemented in a model-based manner via a frequency distribution of the lateral displacements of the radar sensor detected objects*; *determining a histogram of a frequency distribution of the lateral*

displacements; *correlating the histogram to stored lane models*; and *detecting an instantaneously driven lane of the multi-lane roadway based on a lane model having a greatest correlation to a laterally-offset histogram.*

Accordingly, it is respectfully submitted that claim 11 is allowable for essentially the same reasons as claim 6.

Withdrawal of the rejections of the claims is therefore respectfully requested.

In sum, claims 6 to 8 and 11 are allowable.

CONCLUSION

In view of the foregoing, it is respectfully submitted that all of the presently pending claims are allowable. It is therefore respectfully requested that the rejections (and any objections) be withdrawn. All issues raised by the Examiner having been addressed, an early and favorable action on the merits is respectfully requested.

Respectfully submitted,

Dated: 1/11/2008

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